

IN THE CLAIMS

30. (Currently amended) A device structure for rendering sheet material secure from counterfeiting, comprising a sheet material and a pattern of predetermined configuration ~~consisting~~ of polyethylene dioxythiophene polystyrene sulfonate (PEDT/PSS) applied to ~~[[the]]~~ said sheet material.

31. (Currently amended) The device structure of claim 30, wherein ~~[[the]]~~ said sheet material comprises paper and wherein ~~[[the]]~~ said pattern ~~[[of]]~~ comprises PEDT/PSS ~~is applied to the paper in the wet pulp state thereof at least partially saturated therein.~~

Please cancel claim 32.

33. (Currently amended) The device structure of claim 30, wherein ~~[[the]]~~ said pattern of PEDT/PSS is of the CPP105 formulation.

34. (Currently amended) The device structure of claim 30, wherein ~~[[the]]~~ said pattern of PEDT/PSS in its applied state is overtly indistinguishable from the paper.

35. (Currently amended) The device structure of claim 34, wherein ~~[[the]]~~ said pattern of PEDT/PSS has a surface resistance determined by at least one of its manner of application, its manner of integration, its composition and its specific formulation.

36. (Currently amended) The device structure of claim 35, wherein ~~[[the]]~~ said pattern of PEDT/PSS contains an additive.

37. (Currently amended) The device structure of claim 36, wherein ~~[[the]]~~ said additive is at least one of a pigment recognizable by the naked eye, an optically active or actuable pigment, and ~~[[or]]~~ a pigment of magnetic properties.

38. (Currently amended) The ~~device~~ structure of claim 30, wherein ~~[[the]]~~ said sheet material contains a water mark and ~~[[the]]~~ said pattern of PEDT/PSS is applied to ~~[[the]]~~ said water mark.

39. (Currently amended) A method comprising:
providing a sheet material having a ~~The device of claim 31, wherein the~~ PEDT/PSS is partially or homogeneously applied to the paper in the wet pulp state thereof;
applying to said sheet material while said sheet material is in said wet pulp state a pattern of PEDT/PSS.

Please cancel claim 40.

41. (Currently amended) The ~~device~~ method of claim ~~[[31]]~~ 39, wherein said sheet material comprises paper and ~~the paper in the wet pulp state thereof is provided with a security element comprising a foil and wherein the~~ said applying comprises applying said pattern of PEDT/PSS is applied to the security element to said foil.

42. (Currently amended) The ~~device~~ method of claim 41, wherein ~~[[the]]~~ said pattern of PEDT/PSS is at least partially applied to ~~[[the]]~~ said foil as a printed image.

43. (Currently amended) The ~~device~~ method of claim 41, ~~wherein the~~ further comprising embedding said foil ~~is embedded in~~ in ~~[[the]]~~ said paper while said paper is in ~~[[the]]~~ said wet pulp state thereof and wherein said foil comprises a first support foil provided with a metallization comprising sectional demetallizations covered by a at least a further layer comprising PEDT/PSS.

44. (Currently amended) The ~~device~~ method of claim 43, wherein ~~[[the]]~~ said pattern of PEDT/PSS is applied as a bonding agent between at least ~~[[the]]~~ said first support foil and ~~[[the]]~~ said metallization and between ~~[[the]]~~ said first support foil and ~~[[the]]~~ said paper in

[[its]] said wet pulp state.

45. (Currently amended) The ~~device~~ method of claim 44, wherein a layer of PEDT/PSS is applied to [[the]] said first support foil on the surface thereof opposite [[the]] said metallization.

46. (Currently amended) The ~~device~~ method of claim 44, wherein [[a]] said metallization is applied to one surface of [[the]] said first support foil and the PEDT/PSS is applied as a layer on [[the]] said metallization.

47. (Currently amended) The ~~device~~ method of claim 43, wherein [[the]] said metallization is covered by a further support foil and at least one of the first and further support foils is covered by a layer of PEDT/PSS.

48. (Currently amended) The ~~device~~ method of claim 43, wherein the elasticity coefficient of the layer of PEDT/PSS is greater than the elasticity coefficient of [[the]] said metallization.

49. (Currently amended) The ~~device~~ structure of claim 30, wherein said sheet material comprises said pattern made of printing ink and wherein the PEDT/PSS is ~~applied as a~~ component of [[a]] said printing ink.

50. (Currently amended) The ~~device~~ structure of claim 30, wherein [[the]] said pattern of PEDT/PSS prior to its application to the sheet material is connected to at least one of a foil, a curable lacquer layer, a reflective layer, and a protective layer prior to application to said sheet material.

Please cancel claim 51.

52. (Currently amended) The ~~device~~ structure of claim 30, wherein [[the]] said sheet

material comprises at least one of a web of paper and a foil applied to the web.

53. (Currently amended) The ~~device~~ structure of claim 30, wherein ~~[[the]]~~ said sheet material comprises at least one of a bonding agent and a primer.

54. (Currently amended) The ~~device~~ structure of claim 30, wherein ~~[[the]]~~ said sheet material comprises a packing material.

55. (Currently amended) The ~~device~~ structure of claim 30, wherein ~~[[the]]~~ said sheet material comprises an article.

56. (Currently amended) The ~~device~~ structure of claim 30, wherein ~~[[the]]~~ said sheet material comprises a security element recognizable by the naked eye.

57. (Currently amended) The ~~device~~ structure of claim 30, wherein ~~[[the]]~~ said pattern of PEDT/PSS comprises ~~is applied as~~ at least one continuous surface.

58. (Currently amended) The ~~device~~ structure of claim 30, wherein the sheet material comprises a discontinuity and ~~[[the]]~~ said pattern of PEDT/PSS extends over the discontinuity.

59. (Currently amended) The ~~device~~ structure of claim 30, wherein ~~[[the]]~~ said pattern of PEDT/PSS comprises ~~is applied as a pattern comprising~~ at least one line.

60. (Currently amended) The ~~device~~ structure of the claim 30, wherein ~~[[the]]~~ said pattern of PEDT/PSS comprises ~~is applied as a pattern comprising~~ a plurality of dots.

61. (Currently amended) The ~~device~~ structure of claim 30, wherein ~~[[the]]~~ said pattern of PEDT/PSS is detectable by at least one of its electric conductivity and optical properties.